

20

<b>Notice of Allowability</b>	Application No.	Applicant(s)	
	10/706,640	KOREN ET AL.	
	Examiner	Art Unit	
	Hong Cho	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--  
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/11/2005.
  2. ☒ The allowed claim(s) is/are 1-9, 26, and 28-38 (renumbered 1-21).
  3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                 | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance              |
|   | 9. <input type="checkbox"/> Other _____.   |

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Keiko Ichiye on 01/12/2006.

Claims 1, 4, 7, 26, 37 and 38 have been amended as shown in the attachment.

#### *Allowable Subject Matter*

2. Claims 1-9, 26, and 28-38 are allowed.

The following is an examiner's statement for reasons for allowance.

3. Claims 1, 4, 7, 26, 37 and 38 are allowable over the prior art of record since the cited references taken individually or in combination fail to particularly teach or fairly suggest performing compression of UDP packets by receiving at a compressor a flow of packets, each packet with a packet identifier associated with a predetermined increment, ignoring a change in the predetermined increment associated with the packet identifiers, assigning a context identifier to the flow, and determining that inactive time associated with the flow has exceeded a maximum allowed inactivity period and making the context identifier available for a next flow. It is noted that the closest prior art of record, Le shows header compression efficiency by reducing overhead for compressing headers of

packets. However, Le fails to suggest making the context identifier available for a next flow after determining that inactive time associated with the flow has exceeded a maximum allowed inactivity period.

### *Conclusion*

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent (6967964) to Svanbro et al
- US Pub (20020038385) to Kalliokulju
- US Pub (20040125817) to Miyazaki et al

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Cho whose telephone number is 571-272-3087.

The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3088.

Art Unit: 2662

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

hc

Hong Cho  
Patent Examiner  
1/23/2006



**HASSAM KIZOU**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**

page 5

ATTORNEY DOCKET NO.  
062891.1146

PATENT  
10/706,640

*Attachment*  
2

**AMENDMENTS TO THE CLAIMS**

For the convenience of the Examiner, all claims have been presented whether or not an amendment has been made. The claims have been amended as follows:

1. (Currently Amended) A method for performing compression, comprising:  
receiving at a compressor a flow comprising a plurality of packets, each packet having a packet identifier, the packet identifiers associated with a predetermined increment;  
ignoring a change in the predetermined increment associated with the packet identifiers;  
assigning a context identifier to the flow;  
compressing the plurality of packets;  
transmitting the flow to a decompressor; and  
determining that an inactive time associated with the flow has exceeded a maximum allowed inactivity period, the flow having a context identifier period; and  
making the context identifier available for a next flow.
2. (Original) The method of Claim 1, further comprising:  
receiving the flow at the decompressor, each packet of the flow having a sequence number;  
detecting a skip in the sequence numbers of the plurality of packets of the flow; and  
accepting the flow having the skip in the sequence numbers.
3. (Previously Presented) The method of Claim 1, further comprising:  
establishing that the flow comprises a compressed packet in the place of a full header packet; and  
establishing that the full header packet is lost.

DAL01:888071.1

page 6

ATTORNEY DOCKET NO.  
062891.1146

PATENT  
10/706,640

3

4. (Currently Amended) A system for performing compression, comprising:  
a compressor operable to:  
    receive a flow comprising a plurality of packets, each packet having a packet identifier, the packet identifiers associated with a predetermined increment;  
    ignore a change in the predetermined increment associated with the packet identifiers;  
    assign a context identifier to the flow;  
    compress the plurality of packets; and  
    transmit the flow; and  
a decompressor coupled to the compressor operable to decompress the flow; and  
further operable to:  
    determine that an inactive time associated with the flow has exceeded a maximum allowed inactivity ~~period, the flow having a context identifier~~ period; and  
    make the context identifier available for a next flow.
5. (Original) The system of Claim 4, the decompressor further operable to:  
    receive the flow, each packet of the flow having a sequence number;  
    detect a skip in the sequence numbers of the plurality of packets of the flow; and  
    accept the flow having the skip in the sequence numbers.
6. (Previously Presented) The system of Claim 4, the decompressor further operable to:  
    establish that the flow comprises a compressed packet in the place of a full header packet; and  
    establish that the full header packet is lost.

DAL01:888071.1

page 7

ATTORNEY DOCKET NO.  
062891.1146

PATENT  
10/706,640

4

7. (Currently Amended) Logic for performing compression, the logic embodied in a medium and operable to:

receive at a compressor a flow comprising a plurality of packets, each packet having a packet identifier, the packet identifiers associated with a predetermined increment;  
ignore a change in the predetermined increment associated with the packet identifiers;  
assign a context identifier to the flow;  
compress the plurality of packets;  
transmit the flow to a decompressor; and  
determine that an inactive time associated with the flow has exceeded a maximum allowed inactivity period, ~~the flow having a context identifier period;~~ and  
make the context identifier available for a next flow.

8. (Original) The logic of Claim 7, further operable to:  
receive the flow at the decompressor, each packet of the flow having a sequence number;  
detect a skip in the sequence numbers of the plurality of packets of the flow; and  
accept the flow having the skip in the sequence numbers.

9. (Previously Presented) The logic of Claim 7, further operable to:  
establish that the flow comprises a compressed packet in the place of a full header packet; and  
establish that the full header packet is lost.

10. (Canceled)

11. (Canceled)

12. (Canceled)

DAL01:888071.1

*Page 8*

ATTORNEY DOCKET NO.  
062891.1146

PATENT  
10/706,640

5

- 13. (Canceled)
- 14. (Canceled)
- 15. (Canceled)
- 16. (Canceled)
- 17. (Canceled)
- 18. (Canceled)
- 19. (Canceled)
- 20. (Canceled)
- 21. (Canceled)
- 22. (Canceled)
- 23. (Canceled)
- 24. (Canceled)
- 25. (Canceled)

DAL01:888071.1



page 9

ATTORNEY DOCKET NO.  
062891.1146

PATENT  
10/706,640

6

26. (Currently Amended) A method for performing compression, comprising:  
receiving at a compressor a flow comprising a plurality of packets, each packet having  
a packet identifier, the packet identifiers associated with a predetermined increment;  
ignoring a change in the predetermined increment associated with the packet  
identifiers;  
assigning a context identifier to the flow;  
compressing the plurality of packets;  
transmitting the flow to a decompressor;  
receiving the flow at the decompressor, each packet of the flow having a sequence  
number;  
detecting a skip in the sequence numbers of the plurality of packets of the flow;  
accepting the flow having the skip in the sequence numbers;  
determining that an inactive time associated with the flow has exceeded a maximum  
allowed inactivity period, ~~the flow having a context identifier~~ period;  
establishing that the flow comprises a compressed packet in the place of a full header  
packet; ~~and~~  
establishing that the full header packet is lost; ~~and~~  
making the context identifier available for a next flow.

27. (Canceled)

DAL01:888071.1

ATTORNEY DOCKET NO.  
062891.1146

PATENT  
10/706,640

7

28. (Currently Amended) The method of Claim 1, wherein assigning the context identifier to the flow further comprising comprises:

determining at the compressor that a previous inactive time of a previous flow has exceeded a previous maximum allowed inactivity period, the previous flow associated with ~~a context~~ the context identifier;

establishing that the context identifier is available; and

assigning the context identifier to the flow in response to establishing that the context identifier is available.

29. (Currently Amended) The method of Claim 1, wherein assigning the context identifier to the flow further comprising comprises:

determining at the compressor that a previous inactive time of a previous flow has exceeded a previous maximum allowed inactivity period, the previous flow associated with ~~a context~~ the context identifier, the previous inactive time exceeding the previous maximum allowed inactivity period prior to exceeding an expiration period, the expiration period used to account for travel time between the compressor and the decompressor; and

establishing that the context identifier is available.

30. (Currently Amended) The method of Claim 1, further comprising:

~~establishing that a context identifier is available;~~

~~assigning the context identifier to the flow;~~

appending a full header packet corresponding to the context identifier to a first packet  
of the flow; and

~~transmitting the flow to the decompressor.~~

DAL01:888071.1

page 11

ATTORNEY DOCKET NO.  
062891.1146

PATENT  
10/706,640

8

31. (Currently Amended) The system of Claim 4, the compressor further operable to assign the context identifier to the flow by:

determine that a previous inactive time of a previous flow has exceeded a previous maximum allowed inactivity period, the previous flow associated with ~~a context~~ the context identifier;

establish that the context identifier is available; and

assign the context identifier to the flow in response to establishing that the context identifier is available.

32. (Currently Amended) The system of Claim 4, the compressor further operable to assign the context identifier to the flow by:

determine that a previous inactive time of a previous flow has exceeded a previous maximum allowed inactivity period, the previous flow associated with ~~a context~~ the context identifier, the previous inactive time exceeding the previous maximum allowed inactivity period prior to exceeding an expiration period, the expiration period used to account for travel time between the compressor and the decompressor; and

establish that the context identifier is available.

33. (Currently Amended) The system of Claim 4, the compressor further operable to:

~~establish that a context identifier is available;~~

~~assign the context identifier to the flow;~~

append a full header packet corresponding to the context identifier to a first packet of the flow; ~~and~~

~~transmit the flow to the decompressor.~~

DAL01:883071.1

page 12

ATTORNEY DOCKET NO.  
062891.1146

PATENT  
10/706,640

9

34. (Currently Amended) The logic of Claim 7, further operable to assign the context identifier to the flow by:

determine at the compressor that a previous inactive time of a previous flow has exceeded a previous maximum allowed inactivity period, the previous flow associated with ~~a context~~ the context identifier;

establish that the context identifier is available; and

assign the context identifier to the flow in response to establishing that the context identifier is available.

35. (Currently Amended) The logic of Claim 7, further operable to assign the context identifier to the flow by:

determine at the compressor that a previous inactive time of a previous flow has exceeded a previous maximum allowed inactivity period, the previous flow associated with ~~a context~~ the context identifier, the previous inactive time exceeding the previous maximum allowed inactivity period prior to exceeding an expiration period, the expiration period used to account for travel time between the compressor and the decompressor; and

establish that the context identifier is available.

36. (Currently Amended) The logic of Claim 7, further operable to:

~~establish that a context identifier is available;~~

~~assign the context identifier to the flow;~~

append a full header packet corresponding to the context identifier to a first packet of the flow; and

~~transmit the flow to the decompressor.~~

DAL01:888071.1

ATTORNEY DOCKET NO.  
062891.1146

PATENT  
10/706,640

10

37. (Currently Amended) A system for performing compression, comprising:  
means for receiving at a compressor a flow comprising a plurality of packets, each packet having a packet identifier, the packet identifiers associated with a predetermined increment;

means for ignoring a change in the predetermined increment associated with the packet identifiers;

means for assigning a context identifier to the flow;

means for compressing the plurality of packets;

means for transmitting the flow to a decompressor; and

means for determining that a previous inactive time of a previous flow has exceeded a previous maximum allowed inactivity period, ~~the flow having a context identifier period;~~ and

means for making the context identifier available for a next flow.

DAL01:888071.1

page 1K

ATTORNEY DOCKET NO.  
062891.1146

PATENT  
10/706,640

11

38. (Currently Amended) A method for performing compression, comprising:

- receiving at a compressor a flow comprising a plurality of packets, each packet having a packet identifier, the packet identifiers associated with a predetermined increment;
- ignoring a change in the predetermined increment associated with the packet identifiers;
- determining at the compressor that a previous inactive time of a previous flow has exceeded a previous maximum allowed inactivity period, the previous flow associated with a context identifier, the previous inactive time exceeding the previous maximum allowed inactivity period prior to exceeding an expiration period, the expiration period used to account for travel time between the compressor and the decompressor;
- establishing that the context identifier is available;
- assigning the context identifier to the flow in response to establishing that the context identifier is available;
- appending a full header packet corresponding to the context identifier to a first packet of the flow;
- compressing at least some of the plurality of packets;
- transmitting the flow to a decompressor;
- receiving the flow at the decompressor, each packet of the flow having a sequence number;
- detecting a skip in the sequence numbers of the plurality of packets of the flow;
- accepting the flow having the skip in the sequence numbers;
- determining that an inactive time associated with the flow has exceeded a maximum allowed inactivity period, ~~the flow having a context identifier period;~~
- establishing that the flow comprises a compressed packet in the place of the full header packet; ~~and~~
- establishing that the full header packet is lost; and
- making the context identifier available for a next flow.

DAL01:888071.1